

Now Photon presents a new phototypesetter that is **its own computer**. The 713 Textmaster Model 20 justifies lines automatically, directly from raw tape perforated by fast non-counting keyboards. No other machine is involved.

The brainy 713-20 decides for itself the right line breaks and inter-word spaces to justify — **without hyphens**. It even makes esthetic decisions: takes bad gaps out of problem word groups by use of finely variable letterspacing.

Right there is the big difference from ALL past attempts by linecasters and phototypesetters at hyphenless justifying. When inter-word spaces try to exceed an acceptable limit, programmed by the operator, the 713-20 automatically distributes the excess as **inter-letter spacing** equally throughout the line.

You set the inter-word space limit in increments of one-eighteenth of an em space. Letter space is inserted in one-thirty-sixth em increments. And how **discrete** is whole-line letter spacing: the largest increment you need to use is still smaller than a linecaster's **smallest** increment, a thin space.

All this directly from raw, unjustified tape. Yet the 713-20 is not too proud to accept tape already justified by a computer (old fashioned though that might seem) or by keyboards.

Wire service tapes set the wrong line length for you? No reset needed. The 713-20 automatically de-justifies and re-justifies to your measure, without adding a second.

Speed? A guaranteed **forty** 30-character lines a minute. Equate that kind of productivity with an under-\$50,000 price and you know a new era in typesetting economy is here.

Straight text production isn't all, either. With 64 type fonts in its hat — 8 different faces and each present in 8 sizes to 36 point — this "mixmaster" will compose 90 per cent of the ad lines and heads for almost any newspaper, and 100 per cent of most other jobs.

Wondering how hyphenless justifying would look in "acid test" 10½ pica newspaper lines? Write for samples. They're as impressive as the hyphenless* lines you are **now** reading.

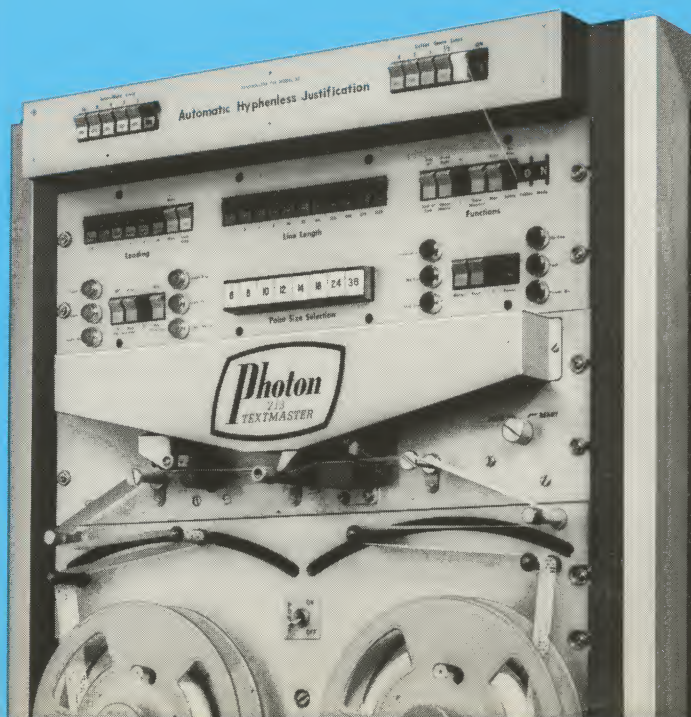
*Don't be deceived by a compound-word hyphen at a line end. The 713-20 doesn't mind **existing** hyphens, it just doesn't create any new ones.

One thought more: when the first 713-20's are delivered in very early 1967, they will join well over one hundred Textmaster 713-10's already in use. These are just two of **eleven** Photon models, the world's broadest phototypesetter line. How far ahead is our technology? **More Photons are now being sold every month than all other comparable machines combined.** But we're trying to get ALL the business — by delivering more typesetting reliability and productivity that your money can buy anywhere else.

Look Photon over carefully.

PHOTON
355 Middlesex Ave., Wilmington, Massachusetts

***Justify
lines from
raw tape
without a
computer***



PHOTON

PHOTOTYPESETTING EQUIPMENT

news release

PHOTON, INC.
355 Middlesex Avenue
Wilmington, Mass. 01887
617 933-7000

NEW PHOTON PHOTOTYPESETTER

ELIMINATES NEED FOR COMPUTER

FOR IMMEDIATE RELEASE

Photon, Inc. has announced a new version of its 713 series Textmaster phototypesetting machine which produces hyphen-less justified lines directly from tape perforated by simple non-counting keyboards. The revolutionary development will enable printers and publishers to utilize very fast tape-punching procedures requiring minimum skills, yet without involving a computer. Photon's new Textmaster Model 20 is in effect its own computer.

Two missing elements in "raw" tape, heretofore demanding computer processing, but which now are provided electronically by the Photon system itself are those of line breaking and justifying. With the new phototypesetter, keyboard operators are freed of responsibility for determining the proper word with which to end a line; they simply produce continuous text. The Textmaster machine automatically chooses for itself the best line-ending point and then calculates the correct amount of space to be inserted equally between all words to extend the line to the standard justified length.

An occasional combination of words which would cause unusually large inter-word spaces is automatically sensed and overcome by insertion of very fine increments of letter spacing within all the words in the line equally. Producing a much higher quality result than can otherwise be had, this technique has been mechanically impossible to achieve in hyphen-less justifying by tape-driven hot-metal linecasting machines as opposed to phototypesetters.

Photon calls the new hyphen-less system machine the 713 Textmaster Model 20. It joins the company's highly successful Textmaster Model 10, regular deliveries of which began in 1965. There will be well in excess of 100 Model 10s in use by the end of 1966.

ADD ONE — NEW PHOTON PHOTOTYPESETTER ELIMINATES COMPUTER

The first of two components in the new machine is the electronic control unit. It reads the tape at 500 characters a second, decides by computation where to break off a line to put the greatest possible wording in it and calculates the needed inter-word spacing and letter spacing if any. Then the control unit sends electrical impulses by cable to the adjoining photographic unit, instructing the setting of type at 20 characters a second. In newspaper use that amounts to more than 35 lines a minute, or a level of productivity equal to three of the fastest hot metal typesetting machines available.

The Model 20's electronic control unit incorporates computer core memory as well as advanced solid state circuitry. These enable it to accomplish a result that is actually more typographically refined than that of special purpose typesetting computers built for hyphenless justification use. Highly automatic, the control unit has only three switches:

1. AUTO. JUST. ON-OFF — Permits disconnection of the automatic justifying circuits so that the Model 20 can be operated from ordinary justified tapes.

2. INTER-WORD SPACE LIMIT SWITCH — Enables setting, in increments of one eighteenth of an em space (about 1/150th of an inch when using newspaper-size type), the maximum allowable inter-word space, beyond which letter spacing will begin to be inserted equally throughout the line in increments of one thirty sixth of an em.

3. LETTER SPACE LIMIT SWITCH — Enables setting, in increments of one thirty sixth of an em the maximum allowable letter space, beyond which a reversion to inter-word spacing will automatically occur.

The Textmaster Model 20 control unit will automatically select an already existing hyphen (in a naturally hyphenated word) as a line ending point; but it will not create a hyphen where one does not already exist in the tape.

At a delivered base price of \$48,000, Photon's new Model 20 machine costs \$10,000 more than the Model 10, which lacks the automatic hyphen-less justifying capability. Deliveries of the new machine will begin after January 1, 1967.

PHOTON TEXTMASTER 713

MODEL 20

Automatic Hyphenless Justification Control Switches

INTER-WORD SPACE LIMIT SWITCHES — These set, in increments of 1/18th of an em space (about 1/150th of an inch when using newspaper-size type) a nominal limit in inter-word space size, beyond which letterspacing will begin to be inserted equally throughout the line in increments of 1/36th of an em.

LETTER SPACE LIMIT SWITCHES — These set, in increments of 1/36th of an em, a limit in allowable letterspace, beyond which a reversion to inter-word spacing will automatically occur.



COMPARISON — TYPICAL STRAIGHTMATTER

Normally hyphenated
hot metal

Hyphenless
Textmaster Model 20

DALLASTOWN, Pa., Sept. 3 —President Johnson ranged inland today from the dry and crowded Eastern Seaboard to proclaim two more battles in his war on poverty—to quench the world's thirst for water and to save America's small towns.

For the third consecutive weekend, Mr. Johnson fled the contention of the capital to solicit the cheers and support of the country. In a now established pattern, he did it by combining lofty Presidential purpose with earthy partisan politics.

"We're on the move, we're on the go," the President asserted with passion at his first stop in Charleston, W. Va., this morning. "People have high hope. People are working, people are eating. We're doing what a democratic President, a democratic Government, ought to be doing for a democratic people."

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● — With elimination of hyphenating of "inland" the resulting inter-word spaces would be uncomfortably large but for fine, even letterspacing of the three remaining words, effected automatically. Machine settings here limited inter-word spaces to 11/18ths of an em. More or less letterspacing would result from different settings.

● — Troublesome wording here would cause very large inter-word spaces in 3 successive lines; but varying letterspace insertion overcomes the condition, achieves good appearance.

● Indicates line with letterspacing.

This story used 9 hyphens in the first 34 lines, a 27% rate. Does appearance or readability suffer by elimination of these hyphens?

HOW VARIABLE INCREMENT LETTERSPACING CURES EXCEPTIONALLY DIFFICULT WORDING SITUATIONS

By PAUL MONTGOMERY

Trans World Airlines announced yesterday that it had placed the largest plane order in its history—\$410-million for 28 new jet aircraft, including 12 Boeing 747's that will carry 325 passengers apiece on trans-Atlantic routes.

T.W.A.'s order, all of it placed with The Boeing Company, will bring the number of jets in the line's fleet to 201 when delivery of the order is completed in 1970.

The airline's order for the 747's, which have a capacity of 490 passengers but will carry only 325 under current T.W.A. plans, gave a boost to the huge craft. At least 47 of these new jets have now been ordered by airlines, including 25 destined for Pan American World Airways. The jets are scheduled to be rolling from the production lines in late 1969.

An International Role

Charles C. Tillinghast Jr., president of T.W.A., said the new aircraft would play an important part in the line's international plans. He noted that from 1960 to 1965 the number of TWA's trans-Atlantic passengers had increased by 206.7 per cent, and the company's share of passengers in scheduled trans-Atlantic service had risen from 12.6 per cent to 19.7 per cent.

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- — Eliminating part of word "announced" would leave giant inter-word spaces, curable only by letterspacing. Insertion of 3 1/2 relative units of space (80% of a thin space) equally throughout the line preserves acceptable appearance.

- System selects pre-existing hyphen (trans-) as line ending.

- Very difficult word combinations occurring in many lines all are compensated for and made acceptable by varying letterspacing.

• Indicates line with letterspacing.

WHICH SUITS YOUR EYE? (Look at last paragraph particularly.)SETTING A.

MINIMUM USE OF LETTERSPACING:

No Letterspacing occurs until inter-word spaces will exceed 18 relative units or 1 em. Letterspacing is then restricted to a maximum of 4 units or .22 em. Remaining space if any is distributed as inter-word space.

SETTING B.

USING LETTERSPACE SOONER:

Letterspacing starts when inter-word spaces exceed 13 units (.7 em); and letterspacing is limited to 4 units (.22 ems).

SETTING C.

OPTIMUM LETTERSPACING?

Letterspacing starts when inter-word spaces exceed 11 units, and letterspacing is limited to 4 units.

SETTING D.

PRONOUNCED LETTERSPACING:

Letterspacing starts when inter-word spaces exceed 8 units, and letterspacing is limited to 4 units.

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By GERALD ESKENAZI

Every day, an hour before the New York Mets take the field, Bud Harrison walks somberly into the batting cage, swings—and berates himself.

I'm dragging my foot, Whitey, it's no good."

"Now take it easy," replies Coach Whitey Herzog, 'you're doing fine. Hit that ball like it's your enemy. Smash it . . . that's it, that's it.'"

Harrison, 22 years old, will some day be the Mets' shortstop. But a lot of hitting practice lies ahead for the youngster, who has no illusions.

"I don't feel I should be here off my record," he says. "But they've buttered me up. Every place I've played, the manager told me, 'Don't worry, don't worry. Your hitting's fine.'"

"Maybe," he adds, "they know more than I do."

Harrison joined the Mets three weeks ago, after playing 116 games with Jacksonville of the International League.

"The fielding is no problem. I can field up here. But hitting. It's more that getting the hit. It's knowing how to bunt, how to hit behind the runner, how to fight those defenses."

WASHINGTON, Sept. 3—A survey of Negro attitudes in Harlem and Watts suggests that ghetto dwellers are concerned more about police protection than about police brutality.

Although the survey found considerable evidence of hostility among Negroes toward the police, it also discovered that many Negroes sympathized with police problems and wanted more instead of fewer policemen in the neighborhoods.

These were among conclusions arrived at by John F. Kraft, Inc., an independent public opinion research organization. The concern conducted 527 interviews in the Watts area of Los Angeles one month after the riots there last August. The Harlem survey involved interviews with 1,200 persons and was completed only a week ago.

Then came two events that suddenly changed the outlook. One was the designation of Baltimore last April as "the national target city" of the Congress of Racial Equality, a move that may have generated more resentment than accommodation among whites here.

The other was the open housing debate in the House of Representatives in Washington during July and a series of retreats from their earlier positions of support for open housing by the other major gubernatorial candidates in Maryland.

Mr. Finan made a similar retreat. George P. Mahoney, 65, a paving contractor, adopted a hard line anti-open housing stance.

As a result, Mr. Mahoney has acquired the support of many of the segregationist and right-wing groups here that supported Governor Wallace. He has also opened an unexpected wedge for Mr. Finan, largely by causing what appears to be "backlash" defections from Mr. Sickles in Baltimore's large labor vote and in its blue-collar European ethnic blocs.

However, Mr. Finan has apparently made some inroads on Baltimore's Negro vote by arranging the appointment this summer of the first Negro city judge, a move that won the Attorney General the endorsement of State Senator Verda Welcome, the only Negro woman in the Legislature.

This is the first Maryland primary without the so-called "unit vote" which gave a primary candidate who won a majority in a county all that county's unit votes. The result is that the campaign is being carried on almost to the exclusion of Maryland's less-populated rural counties.

More than 70 per cent of the popular vote in the state lies in this city, in surrounding Baltimore and Anne Arundel Counties, and in the Washington suburbs of Prince Georges and Montgomery Counties.